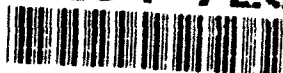


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The Battle Of Warsaw, 1920: Impact On Operational Thought

A Monograph
by
Major Harold H. Worrell, Jr.
Field Artillery



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School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas

Second Term AY 93-94

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NSN 7540-01-280-5500

SCHOOL OF ADVANCED MILITARY STUDIES

MONOGRAPH APPROVAL

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Accepted this 6th day of May 1994

DTIC QUALITY INSPECTED 3

ABSTRACT

The Battle of Warsaw, 1920: Impact on Operational Thought
By Major Harold H. Worrell, Jr., USA, 56 pages.

This monograph compares the Polish and Russian actions in the Battle of Warsaw and their subsequent impact on the development of operational thought. Although the Battle of Warsaw was overshadowed by events of the two World Wars, the Polish victory ensured the rebirth of Poland and prevented the spread of the Russian Revolution by force of arms. Its impact on the development of Soviet operational thought was clearly significant. Its dismissal by most western theorists, by contrast, represented a missed opportunity to develop a theory which went beyond purely tactical actions.

The section following the introduction reviews the strategic and political setting prior to the battle. The third and fourth sections examine the Polish army under the command of Marshal Pilsudski and the Russian army under the command of General Tukhachevski. The fifth section highlights actions of the Battle of Warsaw. The last section draws comparisons between the actions of the two sides and assesses the implications for the evolution of thought on the operational level of war.

This monograph concludes that insights from the Battle of Warsaw played a significant role in shaping Soviet operational thought during the inter-war years, most notably in the writings of Svechin and Tukhachevski.

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SECTION I: INTRODUCTION

The Russo-Polish war of 1920 has been a virtually forgotten event in history, overshadowed by the two World Wars. Poland, under the leadership of Marshal Josef Pilsudski, sought to reclaim its independence. Russia aspired to expand the Bolshevik revolution into all of Europe. This war marked a clash between two nations struggling to define their national identity. The international importance of this war, however, can not be overlooked. Its outcome helped maintain the stability achieved by the Peace of Versailles, preserved the independence of a reborn Polish nation, and delayed the expansion of the Bolshevik revolution.

The decisive defeat of Russian forces on the outskirts of Warsaw culminated the Russo-Polish War. Viscount Edgar V. D'Abernon argues that the Battle of Warsaw ranks as one of the most decisive battles of all time. "Had Pilsudski and Weygand failed to arrest the triumphant advance of the Soviet Army at the Battle of Warsaw, not only would Christianity have experienced a dangerous reverse, but the very existence of western civilization would have been imperiled."¹ Many historians have likewise focused on the actions of Marshal Pilsudski and General Mikail Tukhachevski. For the most part the impact this battle had on the evolution of warfighting and the operational level of war has been overlooked, however. The Russo-Polish war stands out in contrast to the static trench

warfare practiced on the western front during World War I and hearkens back to a more mobile, fluid style reminiscent of Napoleon and Moltke.

In analyzing any battle there is an important distinction that must be made between operational art and the operational level of war. Operational art is an activity and by definition determines "when, where and for what purpose major forces will fight over time."² On the other hand, the operational level of war falls between strategy and tactics and links battles and engagements together for a specific strategic effect.

The use of history to analyze such battles and campaigns is invaluable to the professional soldier. In his article, "Of Aphorisms, Lessons, and Paradigms," Gary Cox cautions that historical studies should not be reduced to only a search for lessons learned or a single body of truth which produces victory. Rather, history should supply "experience and enhance critical judgment."³ To develop this ability to analyze war, Dr. Robert Epstein encourages students to go beyond the superficial actions on the battlefield and examine the cause and effect relationships in war. Similarly, Michael Howard points out that the study of history must not be taken out of context. He contends that history should be studied in *depth* to understand how decisions are made and in *width* to see the different variations possible for both victory and defeat. Proper context reveals how social, political, geographic, and national factors influence actions in war.⁴

Following those high standards, this monograph seeks to compare the Polish and Russian actions in the Battle of Warsaw and their subsequent impact on the development of operational thought. The section following this introduction reviews the strategic and political setting prior to the battle. The third and fourth sections examine the Polish army under the command of Marshal Pilsudski and the Russian army under the command of General Tukhachevski. The fifth section highlights actions of the Battle of Warsaw. The last section draws comparisons between the actions of the two sides and assesses the implications for the evolution of thought on the operational level of war.

SECTION II:

STRATEGIC AND POLITICAL SETTING

The historical background of the Russo-Polish war was influenced by events in Russia and the settlement of World War I. Determining precisely how and when the Russo-Polish war started is difficult. The causative issues were already present when Poland recovered its independence. The Treaty of Brest-Litovsk, the Treaty of Versailles, and the revolution in Russia formed the backdrop for the war. It was a war which would decide whether or not the Peace of Versailles would be destroyed within a year of its creation, with potentially dangerous and far-reaching consequences throughout Europe.

Although war was never officially declared, it escalated as tensions grew and the drive for Polish national self-determination evolved.

For centuries the dream of Polish independence was kept in check under the yoke of occupation imposed by its powerful neighbors Germany, Russia, Austria and Prussia. The Polish people saw their territory partitioned and boundaries redrawn. They had no "nation" to call their own. The first Polish Partition in 1772 and the third in 1795 essentially dismantled the land mass of Poland. The First Partition reduced Polish territory by approximately thirty percent, while the Third Partition witnessed the total dismemberment of the remaining territory by Russia, Austria, and Prussia.⁵ The Polish people never accepted the permanence of the partitions, and for the next 123 years they struggled to regain their homeland. Their passion for independence is evident in a statement issued by Josef Pilsudski on 22 April 1919. The "Proclamation to the inhabitants of the former Grand-Duchy of Lithuania" states:

For more than a century your country has known no freedom. It has been oppressed by the hostile force of Germans, Russians, and Bolsheviks, who, whilst never consulting your wants ... interrupted your way of life.

I, ..., am well acquainted with its state of perpetual subjection, a state which must be removed once and for all. Now at last, ..., liberty must reign,

with the right of full and unrestricted expression of aspirations and needs.

The Polish Army brings Liberty and Freedom to you all. It is an army ... to expel the rule of force and violence, and to abolish governments which are contrary to the will of the people. ⁶

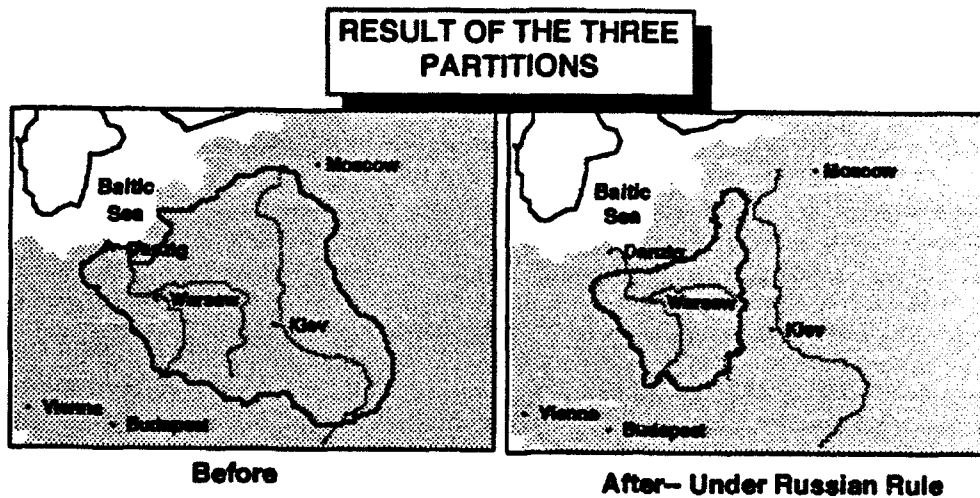


Figure 1

World War I reduced Russia to a state of economic ruin which hastened the overthrow of the Czarist regime in Russia. The Russian revolution began in March of 1917 with the abdication of the throne by Czar Nicholas II. The Bolsheviks, led by V. I. Lenin, forcefully seized power in October. Lenin sought the overthrow of bourgeois capitalism practiced by the previous regime. He resolved to centralize all activities and transform the state into a "self-sufficing and self-operating classless society."⁷ Lenin recognized that the proletariat was the key to success in building a Soviet state. As early as

1914, he wrote that "it is [as] impossible to pass from capitalism to socialism without breaking national frameworks as it was impossible to pass from feudalism to capitalism without adopting the idea of a nation."⁸

Following the October Revolution, a civil war erupted in Russia which pitted the Bolshevik Red Army against a White Army composed of their political opponents. Uncoordinated offensives by White forces on a number of fronts characterized the civil war. In essence, this war was a psychological and political one, pitting socialism against imperialism. Lenin believed that the war "would be settled in the rear and not in the trenches."⁹

The international community recognized the threat that an expansion of the Bolshevik revolution represented to western Europe. In the meantime, Russia was still engaged in the World War on the eastern front. Russia's involvement in the War against Germany ended with their signing of the Treaty of Brest-Litovsk on 3 March, 1918. The treaty "left the Central Powers [Germany] essentially in control of Poland, the Ukraine, and the Baltic lands."¹⁰ Under the terms of the treaty, the Bolshevik government recognized the independence and autonomy of Poland, Finland, Estonia, Latvia, Lithuania, and the Ukraine.¹¹ In Poland's case this acknowledgment was especially significant; they were awarded a large area west of the Bug River including the district of Chelm. However, the civil war in Russia continued.

Treaty of Versailles

The Treaty of Versailles was signed following the end of World War I. Germany suffered most of the negative effects of the treaty; Poland enjoyed a resurrection of national self esteem. The treaty redrew the map of Europe, and there was a space reserved for Poland. In the two years following the end of World War I, the hope for regained Polish independence became a reality. At the peace conference, the Polish delegation demanded the surrender of the former Prussian sector from Germany. At the signing of the treaty on June 28, 1919, Poland was awarded the Danzig corridor, a strip of land and coast that provided access to the Baltic Sea. Danzig itself was proclaimed a "free city" under the administration of the League of Nations.^{1 2} Additional arrangements outlined in the Versailles treaty, however, left the sovereignty of the border region that separated Poland and Russia in dispute. A temporary line, subsequently referred to as the Curzon Line, was recognized as the demarcation between Poland and Russia. The line created a temporary boundary that extended southward from Grodno through Brest-Litovsk, followed the Bug River to Prezeysi, and then turned southeast to the Czechoslovakian border.

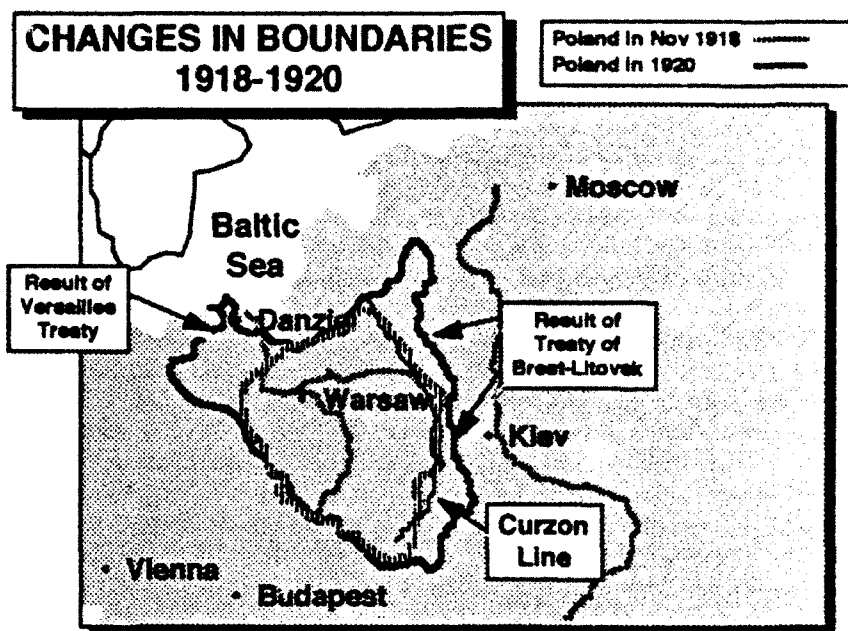


Figure 2

The Allies who signed the Versailles treaty realized the importance of this agreement and its significance for maintaining peace in Europe. Winston Churchill acknowledged that Poland was the "lynch-pin" of the treaty. By remaining independent and serving as a buffer, Poland would determine whether or not peace in Europe would be threatened by the spread of the Bolshevik revolution. The Prime Minister of England, Lloyd George, also recognized that the whole fabric of peace depended upon the survival of the Polish state.

The Russian view of the Treaty of Versailles is equally important to understand; Poland served as a buffer state interposed between Russia and the rest of Europe. Lenin believed that "by attacking Poland we are attacking the allies;

by destroying the Polish Army we are destroying the Versailles peace, upon which rests the whole present system of international relations."¹³

The Start of the Russo-Polish War

It is difficult to establish the beginning of the Russo-Polish war. The debate falls into two camps. One contends that the war started in February 1919 with a brief engagement between Polish and Bolshevik units at Bereza Kartuska.¹⁴ The other maintains that the Polish march on Kiev in April 1920 marked the start of the war.¹⁵

In his work, "The Genesis of the Polish-Soviet War, 1919-1920," Norman Davies contends that the war started in February 1919. Following the German withdrawal from Oberkommando-Ostfront, Polish and Red Army forces moved in to fill the void.¹⁶ On 14 February, Captain Mienicki of the Polish Wilno Detachment led a reconnaissance party into the township of Bereza Kartuska. There he engaged a small detachment of Red Army soldiers and took eighty prisoners.¹⁷ This encounter was not planned, but it is noteworthy in that it demonstrates an independent action by Polish forces against the Red Army. From this time until the Polish drive on Kiev, there were sporadic clashes between small units. These encounters started and then broke off without any apparent plan or pattern.¹⁸

In his article "Beyond the Bug: Historiography of the Soviet-Polish War," James McCann refutes Davies' claim and contends that there is "no doubt that the major conflict of the ... war began with Pilsudski's decision to march beyond the borderlands ... while the Red Army was still engaged in the civil war."¹⁹ Many other historians, mainly Soviet, also believe that the war started with the Polish march on Kiev on 24 April, 1920. Poland feared Russia's own wish to expand its borders and export their revolution to the west. While Russia was in a weakened state, due to the civil war, Poland saw an opportunity to return to its traditional borders. The Poles seized the moment and advanced.

For the Russians, the war was both a response to Polish aggression and an opportunity to export the revolution to the west. Moreover, however it began the war became one of national survival for the Poles and revolutionary expansion for the Bolsheviks. For the purpose of this study, the march on Kiev is recognized as the beginning of the war.

Geography

The geography of central and eastern Europe plays a significant role in the Russo-Polish war and the Battle of Warsaw. For centuries the plains of eastern Europe have been considered a natural route of invasion for armies moving across the continent. The study of terrain, lines of communication, and axes of advance is critical to

understanding the impact of geography on military operations in this region.

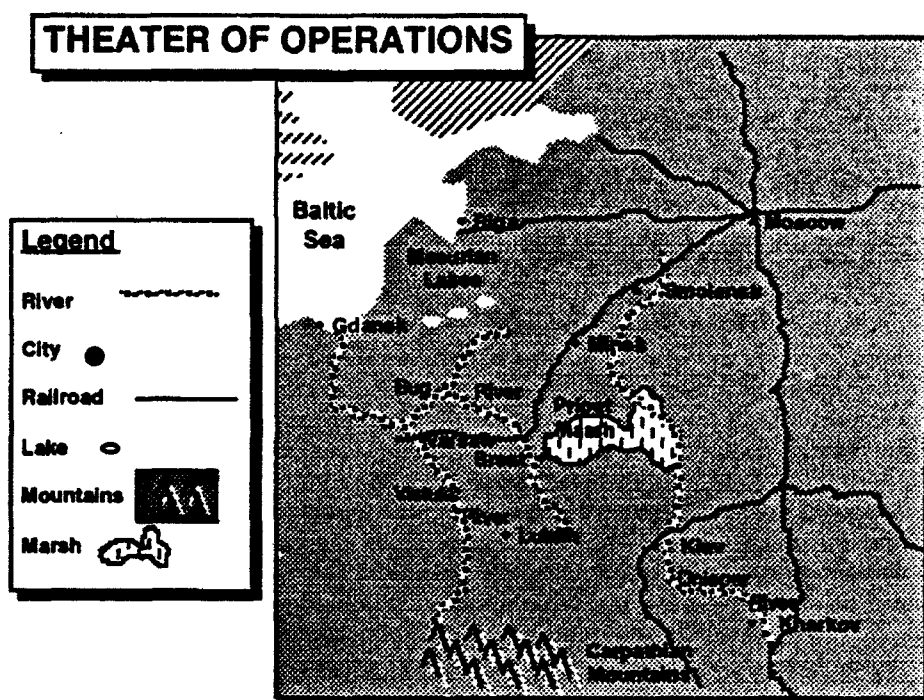


Figure 3

The theater of operations for the Russo-Polish war was immense. The front formed by the two armies was over one thousand kilometers long, about half of which was usable for major operations. The theater was bounded by the Baltic Sea in the north, the Carpathian Mountains in the south, the Vistula River in the west, and the Dnieper in the east. The area of operations was in the general shape of a triangle, with Warsaw, Smolensk, and Kharkhov at the tips.²⁰

A number of geographical obstacles exist within this area. A series of river systems flow throughout the theater.

The Vistula River runs south to north bisecting Poland from the Carpathian mountains to the Baltic sea. The Narew and Bug rivers flow into the Vistula north of Warsaw, the Bug originating south of Brest, and the Narew north towards Grodno.²¹

North of Warsaw lies a rugged forested region known as the Masurian Lakes, that stretches across the northern border of Poland. This region is bounded by the Vistula in the west and the Neman river in the east. The most formidable obstacle in the theater however, is the Pripet marshes. This marshland is generally regarded as being impassable, splitting the east-west approach to Warsaw into two separate sectors. In the west, the Pripet Marshes open onto a plain where the two sectors converge in the vicinity of Brest. Not only does this area canalize east-west movement, but it inhibits freedom of maneuver north and south.

Lines of communication in the theater of operations played a key role for the movement of forces and supplies. The road system was incapable of sustaining an army's communications. East of the Bug River there were only two macadamized roads, and both ran perpendicular to the front. Depending on the weather conditions, the secondary road system "fluctuated between being morasses of mud in the spring and unbearably dusty sand-pits in the summer."²² Additionally, the bridges in the area were scarce or damaged as a result of action during World War I. In many instances

railroads offered the only reliable means of transportation. Even these were mostly single track, consisting of both narrow and wide gauge track. "...Tracks had to be converted one way or the other ... unless a suitable quantity of enemy rolling-stock had been captured."²³

The geographic considerations of this theater gave shape to the axes of movement in the Russo-Polish war. Two axes were formed that have an impact in this theater. One axis runs Moscow-Minsk-Warsaw, north of the Pripet marshes, and the other ran Kiev-Rovno-Lublin, south of the marsh. The axes merged at Warsaw. There were also numerous tactical axes that ran east and west through the theater. The axes thus formed influenced military operations in terms of movement, logistics, and communications.²⁴

SECTION III:

THE POLISH ARMY

Battle is the final objective of armies and man is the fundamental instrument in battle. Nothing can wisely be prescribed in an army -- its personnel, organization, discipline and tactics, things which are connected like the fingers of a hand -- without exact knowledge of the fundamental instrument, man, and his state of mind, his morale, at the instant of combat.

Colonel Ardant du Picq ²⁵

Pilsudski was a student of Napoleon, the Russo-Japanese war, and the Polish uprising of 1863. He studied the psychology of the army and found its "truth" in Napoleon. He realized that the basis of an army is the soul of the simple soldier. When this collective soul is strong, the army will survive both prosperity and adversity.²⁶

In the Russo-Polish War, the army was a manifestation of Poland's struggle for survival and independence. At the start of the war, Poland had been an independent state for less than a year. The initial development of its military can be traced back only a decade. Prior to 1910, there was no organized military in Poland. Pilsudski was directly responsible for the creation of the Polish army with the formation of "rifle associations" starting in 1910. These associations served as the seed bed for the Polish Legions that fought in World War I and became the foundation of the Polish Army that fought in the Russo-Polish war. The paramilitary "riflemen's associations" conducted military training and offered theoretical instruction on military subjects. These associations were secretly supported by the Polish Socialist Party (PPS) and the Union of Active Struggle (ZWC). The rifle associations worked under collective leadership until 1912 when Pilsudski was named commander-in-chief. ²⁷

Rising tensions in the Balkans and the possibility of war between Austria and Russia had a profound effect in Poland. Political parties within Poland sensed that she would have to

take a stand should conflict arise in the Balkans. The result was an intensification of the military movement and the formation of para-military associations by a number of political groups. By June of 1913 the Riflemen's Association boasted some 7,000 members. The next largest organization, the Riflemen's Section, had a membership of 1,500.²⁸ The fundamental purpose of these associations was to train a nucleus of men who would some day become the Polish national army. The movement further expanded to include the establishment of a staff school and officers' training course.²⁹

The start of World War I witnessed the next stage in the evolution of the Polish army. Polish contingents fought with the Russian, German, Austrian, and French armies. The war saw the organization of the Polish "Legion," in the tradition of the Polish legions that fought in the Napoleonic wars. Eventually three legions were formed and fought as independent brigades under Austrian operational control. The first two brigades had an initial strength of about 2,500 men. The first brigade was personally commanded by Pilsudski and the second by Jozef Haller, who had been an officer in the Austrian army. In 1915 the Austrian Government authorized the raising of a third brigade. By 1916 the three Polish legions consisted of a combined strength of over 12,000 men.³⁰

The men of the Polish Legion were recruited from the Polish "intelligentsia" and were courageous and highly

motivated. Yet the nation they served considered them undisciplined and unorthodox in their methods and deemed their officers inexperienced. The charge that they were undisciplined is misleading, for their loyalty was to Pilsudski and Poland. Their courage and fighting qualities can not be questioned. The Legions were primarily used as shock troops during assaults or as last-ditch defenders.³¹

By 1917 more than two years of war had drained German and Austrian manpower reserves. At this point Poland gained political recognition. Both sought Polish forces to replenish their armies, but the Polish Central National Committee stated that its forces "could only be called up by 'a Polish government, the only legal dispenser of Polish Blood.'"³²

In addition to the Austria-Hungarian Polish Legions, Poles fought in the Russian and German armies. Mobilized as reservists in the Russian and German provinces, ultimately 600,000 Poles served in the Russian army and over 200,000 were called up from the eastern provinces to serve in the German army. Against their will, these Poles fought against one another for other nations' goals, not for Polish interests.³³ Throughout World War I, regardless of the side they fought, Polish soldiers acquitted themselves well. The experience and training gained on the battlefield would eventually serve them well in their own future battles.

Following the World War, the Polish Legions disbanded, and the soldiers returned to the task of reestablishing their

towns and homes. When Pilsudski returned to Warsaw from his imprisonment in Magdeburg in November of 1918, he was installed as Supreme Commander of all Polish forces.³⁴ He set about the task of building the Polish Army. At the time the nucleus of the Polish army was three regiments of Polnische Wehrmacht. The remnant from the German occupation forces consisted of three squadrons of cavalry and a cadet detachment, totaling 9,000 men.³⁵ Officers and men from the previously disbanded Legions came forward and joined the army, to include those who had served with the Russian, Austrian and French armies.

When Haller's Blue Army returned from France, its fifty thousand men made the single most valuable contribution to the effort of rebuilding the Polish military. Haller's Army was primarily comprised of Austrian and German prisoners of Polish nationality and American volunteers. This force, which included a regiment of seventy tanks, was better trained and equipped than the rest of the Polish Army. In a period of eighteen months, more than 300,000 volunteers came forward for service.³⁶ Including volunteers and conscripts, the Army consisted of 740,000 men by the spring of 1920. They were organized into twenty-one infantry divisions and seven cavalry brigades.³⁷

The major challenge facing Pilsudski with the creation of the Polish Army was to assimilate, equip, and train the force. The volunteer army represented a microcosm of Europe,

each element speaking its own language. All social classes were represented, from peasants and students to professional soldiers and aristocrats. Each unit brought with it the distinct national military character of the nation under which it had previously served. The First Cavalry Division was composed of regiments whose background and training was Austrian, Russian, Polish, German, and French. Each ethnic group held to their own customs and styles of fighting and dress. An Artillery officer serving with the First Cavalry Division assessed the differences between the regiments: "Six regiments were like so many children born of the same mother, but conceived of different fathers."³⁸

Equipping the Army was a challenge of colossal proportions. A division might be equipped with four different rifles, the French Lebel, the Austrian Mannlicher, the Russian Berdan, or the German Mauser. Each fired different ammunition. In the case of the artillery, the problem was different. The French 75mm field gun was the standard, but it was difficult to stockpile enough ammunition.³⁹

The state of training in the Polish Army was poor. Only a few elite units were capable of engaging in battle. The majority of formations were able to accomplish only basic tasks. The officer corps was composed of men who had previously served in different armies. They had been educated by either Russian, Austrian, German, or French military schools, using doctrine suited to the national objectives of

those respective countries. Given these circumstances many observers like d'Abernon marveled at the fighting ability and unity within the Army, "That the Polish Army ... should have any cohesion is a subject of surprise and admiration."⁴⁰

In an attempt to provide some sense of cohesion, the French sent a mission of over 400 officers to serve as officer training cadres. Their arrival was not uniformly welcomed. Criticism made by members of the mission was blunt, as characterized in an article appearing in the *Journal de Paris* in July 1920:

The army is officers... Your army, with your volunteer histrionic officers, is cannon fodder, your battalions of volunteers -- the hapless victims. Make cadres of the instructors, invite the foreigners who have been rejected in your blindness. Act now, you are again losing your unhappy fatherland. Beware your Austrian generals. They are conditioned to be beaten.⁴¹

By the start of the Battle of Warsaw, the Polish Army consisted of twenty poorly disciplined, inadequately trained, and equipped divisions. The leadership of the force was weak and suspect, except for a few men like Pilsudski, Haller, and the chief of staff General Tadeusz Rozwadowski. With the physical and cybernetic domains in disarray, the moral domain became the bedrock of the Army. One participant in the Russo-Polish war makes this point clear. Major Michael Fibich, an American artilleryman who served in the Polish Artillery,

stated, "the Poles believed earnestly that they were fighting for the most sacred possessions of man: freedom, language, traditions, and religion.⁴²

SECTION IV

THE RED ARMY

The Russian Army is a horde, and its strength lies in its being a horde.

M.N. Tukhachevsky 43

The Russian Revolution in November 1917 marked the end of the Imperial Russian Army. 15 January 1918 is recognized as the official birth of the Workers and Peasants Red Army. Under the direction of Leon Trotsky, the Bolshevik government recruited this new Red Army of volunteers. Trotsky considered the Army an instrument of the revolution, a means to spread its ideology.⁴⁴

When he began forming the Red Army Trotsky did not have a solid foundation upon which to build. The majority of the Army consisted of Latvian troops from the Imperial Army augmented by members of the Red Guard and some battalions of Kronstadt sailors. In order to expand the Army, volunteers came forward to fill the ranks. Many were undesirable candidates, however, representing a collection of adventurers and criminals. The continuing civil war forced the Bolshevik regime to create an Army along more traditional lines, manned

by professional soldiers. Unlike the Polish Army, the Red Army did have a tradition to fall back on, that of the Imperial Army of Russia.

By April 1918 Trotsky had assembled a force of approximately 100,000 men. One author viewed this force as an "anarchic and badly organized force, drastically short of officers, a body enjoying a holiday from discipline."⁴⁵ The Army was not disciplined or large enough to be the Bolshevik instrument of power which Trotsky envisioned would defend and expand the revolution.⁴⁶ Trotsky recognized that in order to expand the Red Army quickly, he must institute compulsory service for all men between the ages of eighteen and forty. For leadership and discipline, he relied on former officers from the Imperial Army. On 29 July 1918, Trotsky issued Order No. 228 for the general mobilization of ex-Tsarist officers. He used a similar order to mobilize noncommissioned officers and administrative personnel.⁴⁷ These officers were considered "specialists" who were to be "squeezed like lemons (for their expertise) and then thrown away."⁴⁸ By August 1920, 48,409 officers, 214,717 NCOs, and 10,339 administrative personnel of the Imperial Army were serving in the Red Army.⁴⁹

Trotsky instituted a system of central control over the former Imperial Officers to ensure their reliability and obedience. He placed political commissars to work along side them in a twin hierarchy matching the operational chain of

command down to the company level. Trotsky viewed discipline and strict adherence to communist ideology as the keys to maintaining central control over the Army. He wrote that "a communist commander must be a model of discipline. Discipline signifies a certain conscious link and subordination among people, who are striving towards a common goal."⁵⁰ He believed that the most precious acquisition for the Army was a communist commander, "a man of duty and discipline from head to foot."⁵¹ Further he recognized the effect "false" communists could have in a unit if they lacked discipline or did not subordinate themselves to communist ideology. Such a man would cause material loss and "poison the consciousness of his unit ... and at the same time undermine the co-ordination of military operations."⁵²

Like the Poles, the Red Army established a "Red Commanders" course in February 1918 to recruit and train commanders. For "volunteers" the course of instruction consisted of four months of preparatory training in Russian language, arithmetic, geometry, history and hygiene. The course for "specialists" ran for three months and focused on tactics, fortification, artillery, military topography and drill. In addition to these subjects, selected commissars supervised the administrative and political instruction of both groups.⁵³

Leading up to the Battle of Warsaw, the most useful training the Red Army received was its experience during the Civil War. These campaigns singled out good officers and gave

young officers an opportunity to prove their talents and commitment to communism. Four officers who commanded with distinction were Tukhachevsky and A.I. Yegerov, who later commanded fronts during the Russo-Polish War, and V.I. Chuikov and G.K. Zhukov, both Marshals in World War II.⁵⁴

In addition to singling out leadership talent in the officer corps, the Civil War also taught the Red Army how to fight. The Civil War altered perceptions on the relationship between space and the disposition of forces. The war was characterized by maneuver, placing a premium on lines of communication and centralized command. Due to its mobility, cavalry regained its position as the decisive arm, as contrasted to its use in World War I. The fluid nature of the war proved the value of a central reserve to block penetrations and conduct counter attacks on threatened fronts. An effective General Staff evolved, one which was able to think conceptually on a large enough scale to control, plan, and position forces within a theater.⁵⁵

Unlike the Polish Army, the Red Army had a single basic weapon, the Lebel rifle. The Army possessed a large stock of these weapons left over from the Imperial Army. Additionally, two Russian factories still produced the rifle. Although inaccurate at long ranges, the Lebel proved a rugged, reliable rifle. And as the primary weapon, it did not place a strain on the supply system for ammunition. By 1920, however, the rapid expansion of the Red Army had outpaced the ability of the

munitions factories in Russia to produce enough weapons to arm the entire force. At the end of the Civil War the Red Army captured large quantities of British and French equipment, which made up for some of this shortage and enabled them to incorporate more modern weapons in their inventory.⁵⁶

In the mobile warfare of the Civil War and later the Russo-Polish War, two pieces of equipment would play a significant role in executing a war of maneuver. One was the Russian Maxim machine gun, a rugged and almost indestructible weapon that could fire for long periods without cleaning or oiling, unlike the mix of fragile machine guns the Poles possessed.⁵⁷ The second was the Tachanka, a horse drawn cart with a mounted machine gun team. It provided a combination of firepower and mobility. The Tachanka was an especially effective weapon for the cavalry, which would bring it forward to provide flanking fire during attacks or withdrawals.⁵⁸

By the beginning of the Russo-Polish War, the Red Army had evolved into a credible fighting force. This Army, born of revolution, contained three major elements. It possessed a foundation for doctrine and tactical employment of forces, an Army with operational experience in battle, and a developing industrial base for support.

SECTION V:

THE BATTLE OF WARSAW

The troops enrolled under the Red Flag are now ready to fight to the death the forces of the White Eagle; avenge the dishonour of Kiev and drown the criminal Pilsudski government in the blood of the annihilated Polish Army. The fate of the world revolution will be decided on the Western front. The path of the world conflagration passes over the corpse of Poland. Forward to Vilna, Minsk and Warsaw! 59

M.K. Tukhachevsky
Orders of the Day
2 July, 1920

The Russo-Polish War can be divided into three phases: 1. the occupation of Kiev, 2. the Russian counter-offensive and advance on Warsaw, and 3. the Battle of Warsaw. The first two phases set the conditions for the decisive encounter of the war, the Battle of Warsaw.

On 25 April 1920, Polish forces advanced to capture Kiev. The audacity of this offensive surprised the Red Army and started a general withdrawal along the entire front. The Red Army avoided battle, and by 8 May Polish forces had occupied the city. Tactically the operation was a success, but operationally and strategically it was a failure. The Poles extended their front and spread their forces, but failed to defeat the Red Army. Politically, Poland's offensive on Kiev turned European support against them.⁶⁰

In reaction to the occupation of Kiev, the Red Army initiated a counter-offensive to drive the Polish Army from Russia and carry the war to the depths of Europe. On 7 May 1920, M.K. Tukhachevsky was given command of the Western Front. After hasty preparations he launched an attack against the Molochevski railway junction on 15 May. This action marked the start of the first of two major offensives to push the Polish invaders back.⁶¹ All along the northern and southern front, Red Army forces attacked. The Russian plan envisioned a supporting attack against the weak right wing of the Polish forces' Northern Front, with the main effort by the Fifteenth Army directed against the left wing, in order to drive the Poles south into the marshes at Pinsk. The Sixteenth Army would simultaneously force a crossing at Berezina and prevent reinforcement in the north. In the Ukraine, Red forces led by Budienny's Cavalry Army attacked the Polish Southern Front's right wing.

Although the Russian attacks on both wings failed to destroy the Polish Army, they forced Pilsudski to use his reserves and weaken his southern flank in order to protect Warsaw. These attacks triggered a period of intense action all along the front. By the end of June, a series of Polish counterattacks succeeded in reestablishing the northern flank, but in the south, Polish forces were forced to withdraw from Kiev. ⁶²

During the next few weeks both sides reorganized their positions and brought forward replacements. Even with 10,000 replacements, the Poles were able to fill units to only half of their required strength because of mass desertions. The fresh troops increased the Polish troop level to only 120,000 men. Tukhachevski was able to increase his strength to over 200,000.⁶³

On 4 July the Red Army started its second offensive against the Polish Army with a heavy artillery preparation. This attack was launched along the entire front. Tukhachevski attacked the First and Fourth Polish Armies at dawn, driving four armies along the axis of the Smolensk-Brest-Litovsk Railway. By the end of the first day the Poles were forced back fifteen miles, suffering heavy losses.⁶⁴ Pilsudski's forces were not entrenched, concerned that their flanks would be turned by Red cavalry. By 7 July the entire Polish Front was in full retreat. Pilsudski wrote that Tukhachevski's advance gave the "impression of something irresistible, a monstrous and heavy cloud which no obstacle could halt ... munitioned with hail; ... men trembled, and the hearts of our soldiers began to yield."⁶⁵

The Red offensive caused the Polish Army to retreat 300 kilometers in thirty days. Polish forces were in a state of panic, continually fearful of being outflanked and destroyed by cavalry. By 6 August Russian forces halted within thirty miles of Warsaw. Feverishly, Pilsudski's forces prepared for the

defense of their capital.⁶⁶ The pace of their movement east under pressure had left the Polish Army in a shambles. During their retreat they had succeeded in destroying railroad and telegraph lines, however, causing the advancing Red Army to rely on wagons to bring supplies and reinforcements forward. Tukhachevski believed that "the combat strength of the Polish Army was completely destroyed by its steady misfortunes and continuous retreat Crushed and despondent, the officers and men lacked the morale to resist. The lines ... filled with deserters."⁶⁷

Tukhachevski was optimistic in his estimate of the condition of the Polish Army. But as the Red Army approached Warsaw, threatening the survival of the Polish nation, Polish national spirit flared. The Polish Minister of War, Soskowski, secured much needed supplies and men to reinforce the combat strength of the army. Since 1 July he had procured 73 new batteries, 200 field pieces, 1000 machine guns, 20,000 horses, and enlisted 100,000 volunteers.⁶⁸

As a result of the retreat to Warsaw, Pilsudski felt a change in strategy was in order. During the Red Army's offensive in July, Polish units had used the French style linear defense that stretched units thinly along a line that extended over 1500 kilometers. This tactic had proven ineffective against the Red Army tactic of delivering successive blows at different points, rushing through the breaches and disrupting the rear of the defense. Pilsudski decided to abandon the

linear defensive recommended by his French advisors and adopt a mobile, "open air" strategy which better suited the conditions of theater of operations and his own temperament. The main elements of his strategy were surprise, maneuverability and speed, in order to attack the enemy's weakest point with constantly moving forces.⁶⁹ In his book *War on Wheels*, C.R. Kutz describes the "open air strategy" as being "similar to that of Lawrence -- a sword thrust at a vital point ... [with victory being secured] by paralyzing the hostile nerve centers rather than battering the body into submission."⁷⁰ Pilsudski asserted that the Polish retreat to Warsaw was intentional. He believed that the Red Army would be weakened by dependence on long lines of supply, while his forces could fall back on their own base of supply and "gather strength and determination."⁷¹

Prior to reaching the outskirts of Warsaw, the Red Army began formulating its battle plans. Tukhachevski formulated his plan for the Battle of Warsaw from his headquarters in Minsk, over 300 miles from Warsaw. Reconnaissance patrols were unable to determine the actual disposition of the Polish defense and reports were slow in reaching Minsk. Cloud cover prevented Soviet aviation from determining the positions as well. Hence, erroneous intelligence regarding the disposition of Polish forces around Warsaw led him to assume that the main effort of the defense was positioned in front of the capital. Polish units were able to effectively disguise the

movements of their Armies all along the 200 mile front by moving in small groups under the cover of heavy mists.⁷²

Tukhachevski developed the concept for the operation based on his belief that he could destroy and fix the Poles main forces in the north and turn the Polish left flank. General S. Kamenev, Commander-in-Chief of the Western Front, disputed Tukhachevski and favored a frontal attack directly on the capital with the main effort in the south.⁷³ Tukhachevski's concept won out, since it was more in line with the Bolshevik objective of complete destruction of the Polish Army and the capture of the government, thus opening western Europe for future invasion.⁷⁴

As commander of the Northern Front, Tukhachevski formulated and issued his plan of attack on 8 August, ordering a general attack on 14 August. His Front of over 200,000 men consisted of four Armies of four infantry divisions each, a Cavalry corps of two divisions, and the Mozyr Group with two division equivalents. The outline of his plan is as follows:

- III Cavalry Corps - cross the Vistula, cut off communications with Danzig.
- Fourth Army - cross the Vistula at Plock.
- Fifteenth Army - advance to Modlin and in conjunction with the Third Army, envelop Warsaw
- Sixteenth Army - frontally attack forces in the vicinity of Radzmin.
- Mozyr Group - Advance west via Deblin.

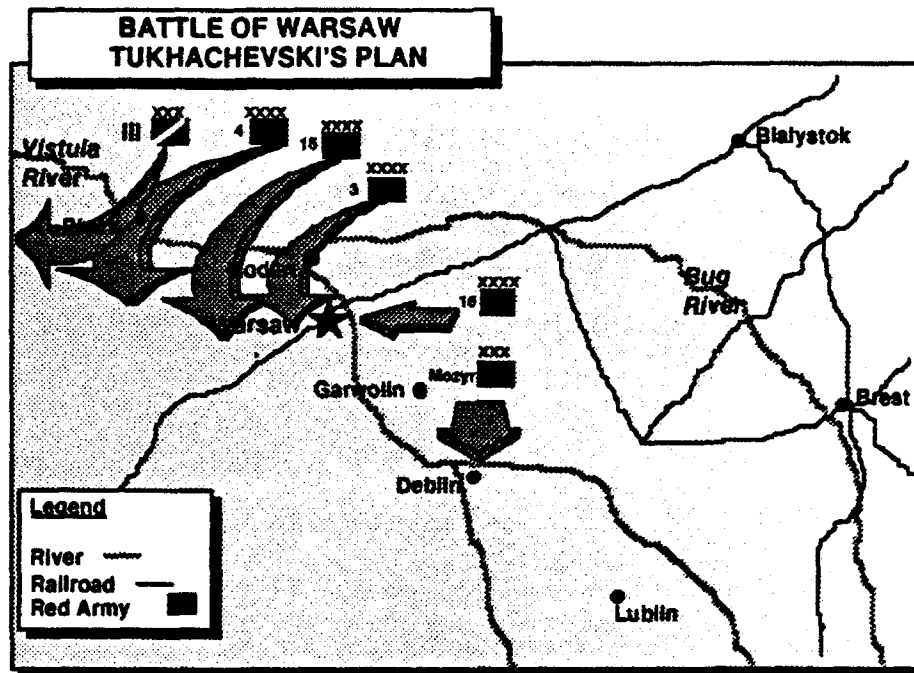


Figure 4

Additionally, Tukhachevski requested the use of the Twelfth Army and Budienny's Cavalry to support his operation in the south, but this did not materialize.⁷⁵ The major flaw of his plan was that it left Tukhachevski without a reserve.

The authorship of the Polish plan for the Battle of Warsaw has been the subject of great debate by historians. Some credit French General Maxime Weygand and others credit Pilsudski. Norman Davies concludes that the arguments surrounding "the authorship of this famous order are irrelevant ... [any] competent strategist ... would have expressed the desirability of similar dispositions."⁷⁶

The situation that faced the Polish Army was grim. Tukhachevski's forces were massed around Warsaw, while

Yegorov's armies and Budienny's cavalry were in the vicinity of Lvov. The two Fronts were linked by a weak center near Lublin. Like his opponent, Pilsudski based his plan on sketchy intelligence. He did not know the dispositions and intentions of the Red Army. His plan hinged on the successful defense of Warsaw while a swift counterattack pierced deep into the rear of the enemy.

Operational Order no. 8385/III was issued on 6 August and preparations were made for its execution on 16th.⁷⁷ The order called for the reorganization of Polish forces into three Fronts. General Haller commanded the Northern Army Group with the First, Second, and Fifth Armies. Pilsudski was in command of the new Central Army Group with five divisions of the Third and Fourth Armies, and General Iwaszkiewicz was stationed in the south with the Sixth Army. The objectives of the order were to (figure 5):

- Establish a line of defense along the Vistula from Plock to Deblin.
- Transfer as many units as possible from the south to form a "strike group," leaving enough force behind to cover Lvov and occupy the enemy.
- Concentrate the main effort "strike force," in the Central Army Group composed of the Third and Fourth Armies, in the vicinity of Deblin, prepared to attack the Red rear in the direction of Minsk.
- Defend Modlin, Warsaw and the Vistula with the Northern Army Group. Fifth Army in Modlin was to halt enemy attempt to outflank the attack, First

Army to defend the Warsaw bridgehead, and Second Army to defend from Warsaw to Deblin.⁷⁸

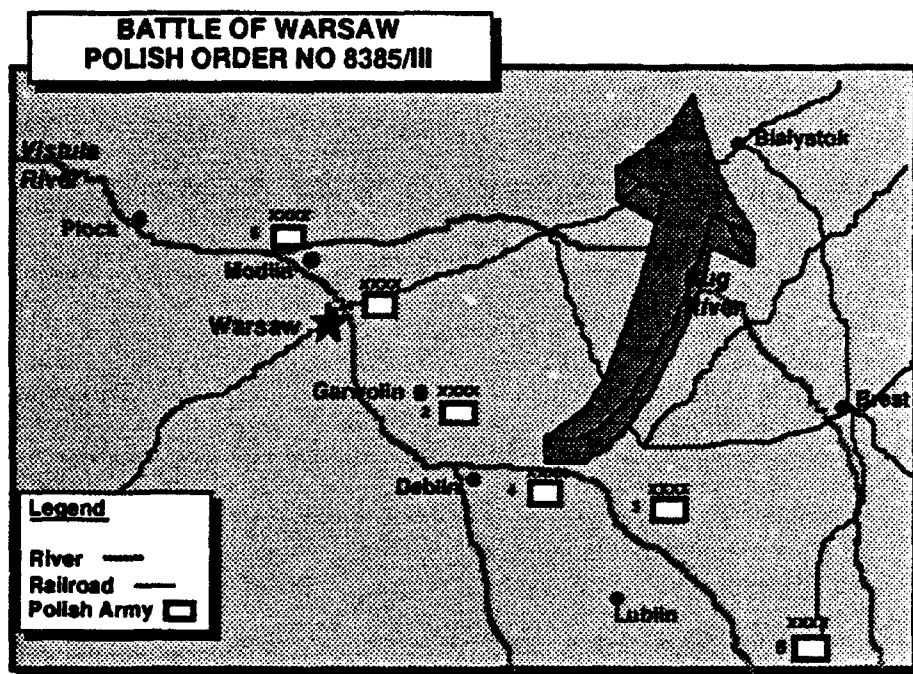


Figure 5

Between 6 and 13 August the Red and Polish Armies made preparations for the coming battle. The Polish Fifth Army was reinforced with one division, one brigade, and one cavalry brigade.⁷⁹ In order to execute their plan, Polish units were also repositioning all along the front under constant pressure from Red forces. In many instances, the regrouping required units to disengage, change command relationships, and move laterally across lines of communication. Over 100 to 200 mile distances had to be covered within five days by men who were exhausted from five weeks of retreat. Due to the physical

state of his men and the complexity of the operation, Pilsudski described this effort as "beyond human capacity."⁸⁰

During this same period, Red Army forces were also on the move as well. On 11 August they attacked and seized crossings on the Narew River, applying constant pressure as they repositioned and reinforced their units for attack.⁸¹

Tukhachevski commenced the attack on Warsaw on 13 August. The Sixteenth Army advanced on the city from the south, while the Fifteenth, Third and Fourth Armies attacked the mobile defenses of the Polish Fifth Army in the north. During the preceding week, the defenses around Warsaw were reinforced with artillery and obstacle belts and were able to withstand these initial attacks.⁸² On the 14th of August, the battle around Warsaw intensified. While Red Army forces closed to within fifteen miles of the city, the Polish Fifth Army initiated a series of counterattacks in order to retain their line. By the 15th of August, the Polish situation was grim. The Fifth Army committed its reserves and was in danger of being enveloped from the rear.⁸³ The First Army held its positions in front of Warsaw by initiating a series of counterattacks spearheaded by 47 tanks.⁸⁴

At 4:00 AM on 16 August, Pilsudski ordered the decisive Polish counterattack in the direction of the Warsaw-Brest road junction. Unlike his counterpart, Pilsudski positioned himself with the "strike force" in order to exercise direct command over the effort. Pilsudski's force surprised the Red

Army, penetrating their rear with almost no opposition.⁸⁵ By the 17th, Pilsudski found himself in Garwolin asking, "was it really true that my five divisions, ..., were boldly advancing over those self same regions which so recently in the mortal agony of the retreat they had abandoned to the enemy?"⁸⁶

The Polish counterattack dealt a deadly blow to morale all through the Red Army. The result of this blow turned the battle into a rout. On the night of 18 August, Tukhachevski ordered a withdrawal of the Red Army all along the front.⁸⁷ Pilsudski sent his forces in a rapid pursuit, marching as much as 25 miles a day, in order to cut off and destroy the fleeing enemy. By the 25th of August, Polish forces had pushed the Red Army 300 miles to the east beyond the Bug River.⁸⁸

For Poland the cost of the Battle of Warsaw was relatively light; the Fourth Army suffered only 500 casualties for example. The toll on the Red Army was enormous. The Poles captured 65,000 prisoners, 231 guns 1,023 machine guns, several thousand horses, and a large quantity of trucks and assorted wheeled vehicles. The retreat left the Red Army with only 3,700 rifles spread between the Fifteenth, Third, and Sixteenth Armies.⁸⁹

SECTION VI:

ANALYSIS AND CONCLUSION

The Russo-Polish war officially ended on 18 March 1921, with the signing of the Treaty of Riga which established the border between the two parties.⁹⁰ Soon thereafter the Red Army set out to study the battles of this war and incorporate those lessons into their emerging doctrine. This effort had a significant impact on the development of operational thought. Experiences in World War I and the Russo-Polish war provided the theoretical framework for A.A. Svechin, M.K. Tukhachevski, V.K. Triandafillov, and M.V. Frunze.

In analyzing the Russo-Polish War, the Soviet theorists concluded that the complexity of modern war altered ideas regarding the levels of war. Besides the strategic and tactical levels, they recognized that there was also an intermediate, operational, level of war. Tactical operations alone could no longer produce strategic aims. In his book *Strategy*, Svechin explained that tactical actions form the basis for an operation, and that cumulative operations produce strategic victory. As he defined the operational level, "the path to final aims is broken up into a series of operations subdivided by time and by more or less sizable pauses, comprising differing sectors of the theater of war and differing sharply as a consequence of different intermediate aims."⁹¹

In 1924 a curriculum for the study of the operational art was established at the Russian Military Academy, devoting

special attention to the Russo-Polish war and the Battle of Warsaw.⁹² Instructors and graduates of the Military Academy continued their interest in the study of war and developed concepts to correct the shortcomings identified in analyzing the offensive of July-August 1920. Three overarching insights evolved from this examination and served as the basis for the expansion of operational art. The Soviet analysis revealed that the offensive took place with inadequate reserves, poor logistical support, and ineffective command and control.⁹³ From these general topics, a number of related theoretical constructs were developed using the Russo-Polish War as their model.

The theory for conducting phased operations was one of the major developments to emanate from the study of the Battle of Warsaw. In his work, *The Vistula Campaign*, Tukhachevski reflected on his experience in the battle by addressing the need for phasing of operations: "... the impossibility, given today's broad fronts, of annihilating an enemy army with one blow makes it necessary to use a series of phased operations ... [which] united by continuous pursuit may supplant the battle of annihilation, the best form of encounter in armies of the past."⁹⁴ In this brief passage he alludes to two theoretical constructs: the value of attrition versus annihilation and the idea of events being connected in time and space during a campaign. Tukhachevski's writing inspired others, like Triandafillov, to further develop this

concept into the theories of deep battle and deep operations.⁹⁵ The Field Regulations of 1929 touched on many of the same themes developed by Tukhachevski and Triandafilov, but in greater depth. The armies described in the regulation were merely modernized versions of the Red Army of the Russo-Polish War.⁹⁶

The importance of logistics at the operational level was highlighted in the Red Army's advance to Warsaw. The speed of the offensive isolated forward formations from their main source of supply, the railroad, creating a gap between the operations at the front and the rear. It was noted that the "summer campaign of 1920 demonstrated that we were not able to organize the rear or control it...."⁹⁷

In order to sustain large scale operations, a continuous flow of materiel and manpower was needed. An examination of the Red Army's logistic and administrative procedures revealed that there was not a scarcity of supplies to support operations in the advance on Warsaw; Red Army logisticians were simply unable to deliver them. The campaign underscored the importance of transporting supplies and reserves by rail. The reliance on horse drawn carts and wagons did not meet the requirements for ammunition and reinforcements.⁹⁸ Any advance beyond a five day march from the railhead overburdened the capability of the logistic system, thus providing a further imperative for phased operations. Frunze recognized that a system of organization and determination of

logistic requirements was clearly necessary to link operations between the rear and advancing forces. On the operational level, he argued that the center of gravity of an operation had shifted from the operator at the front, to the "organizer" in the rear.⁹⁹

While serving as the department head for the study of operational art, N. Varfolomeev recognized the role of logistics in sustaining successive, phased operations. Concurring with Tukhachevski's observations of the Battle of Warsaw, he believed that successive operations depend "fundamentally on the successful struggle against the consequences of the attendant operational exhaustion."¹⁰⁰ Thus, the science of sustaining phased operations became an integral part of Soviet operational art.

The Battle of Warsaw also served as an example of how maneuver warfare over a broad front stresses command and control. Determining the relationship between time and distance is critical in visualizing, assessing and directing actions. Since Tukhachevski remained in Minsk, 300 miles from the battle, it took 18 to 24 hours for information to reach his headquarters. The same amount of time elapsed for orders to reach his commanders in return. He was unable, therefore, to influence the action of his forces in a timely manner as the battle progressed.¹⁰¹

Despite what might be considered a failure in command, the lessons gleaned from the Battle of Warsaw focused more

on control, resulting in the following conclusions. The control of large units would be facilitated by the use of a direction of attack, the selection of objectives, and reliance on decentralized command with central control. Triandafillov pointed out that military leaders should not base operations on "intuition" and "feeling", but on "correctly determining those forces and means which [are] necessary for resolving a given concrete mission, and ... distributing them to large formations [for execution]."¹⁰² While this system provides greater coherence in the planning of an operation, its emphasis on control can also lead to rigidity and a lack of initiative in execution.

Russian theorists like Tukhachevski and Svechin therefore drew specific conclusions from the Battle of Warsaw which spurred the evolution of their operational thought. However, while the Germans also paid some attention to the campaign, it was essentially ignored in France, England, and the United States. The absence of a theory of operational art in the west, together with a narrow minded focus on the lessons of the western front in World War I, meant that Warsaw was not given serious consideration.

Only recently has the United States military revived its interest in the operational level of war. Indeed, the United States Army is still engaged in some of the same theoretical debates Soviets pursued in the 1920s. Deep operations and other operational concepts are currently being refined in our

own doctrine. It is evident that the lessons learned from the Battle of Warsaw were not given due regard.

D'Abernon's contention that this battle should be considered on the same level as Sedan and the Marne may be justified. Although the Battle of Warsaw was overshadowed by events of the two World Wars, the Polish victory ensured the rebirth of Poland and prevented the spread of the Russian Revolution by force of arms. Its impact on the development of Soviet operational thought was clearly significant. Its dismissal by most western theorists, by contrast, represented a missed opportunity to develop a theory which went beyond purely tactical actions.

ENDNOTES

- 1** Viscount Edgar Vincent D'Abernon, *The Eighteenth Decisive Battle of the World: Warsaw, 1920*, (London: Hodder and Stoughton, 1931). p. 9.
- 2** Field Manual 100-5, *Operations*. (Washington: Headquarters Department of the Army, June 1993). p. glossary 6.
- 3** Gary Cox, "Of Aphorisms, Lessons, and Paradigms: Comparing the British and German Official Histories of the Russo-Japanese War." *The Journal of Military History*. (Lexington, VA: The Virginia Military Institute & George C. Marshall Foundation, Vol. 56, No. 3, July 1992), p. 390.
- 4** Robert M. Epstein, "The Historical Practice of Operational Art," Course 4 Syllabus. (Fort Leavenworth, KS: School of Advanced Military Studies, Academic Year 1993/94), p. 2.
- 5** Richard Watt, *Bitter Glory: Poland and Its Fate 1918 to 1939*. (New York: Simon and Schuster, 1979.) . p. 18.
- 6** Norman Davies, *White Eagle , Red Star : The Polish-Soviet War, 1919-1920*. (New York: St. Martin's Press, 1972.) p. 51. Quoted from, *Historia Polski*, Vol. IV, Pt 1. Warsaw (1966), p. 258.
- 7** J.F.C. Fuller, *A Military History of the Western World*. (New York: Funk and Wagnals Co. Inc., 1956.) p. 332.
- 8** Stephen Blank, "Soviet Nationality Policy and Soviet Foreign Policy: The Polish Case 1917-1921." *The International History Review*. (Burnaby, Canada: Morriss Printing Co. Ltd. Vol. VII, No. 1, February 1985.) p. 103. Cited in Elliot R. Goodman, *The Soviet Design for a World State*, (New York, 1960.) p. 28.

- 9 Edward Mead Earle, "Lenin, Trotsky, Stalin: Soviet Concepts of War," *Makers of Modern Strategy*, ed Edward Mead Earle, (Princeton, NJ: Princeton University Press, 1943.) p. 328.
- 10 Rene' Albrecht-Carrie', *A Diplomatic History of Europe Since the Congress of Vienna*. (New York: Harper & Row, Publishers.) p. 358.
- 11 Cyril Falls, *A Hundred Years of War*. (New York: Collier Books, 1962.) p. 226.
- 12 Great Soviet Encyclopedia, Translation of the Third Edition, (New York: Macmillan, Inc. Vol. 20, 1979.) p. 331.
- 13 Adam Zamoyski, *The Battle for the Marshlands*, (New York: Columbia University Press, 1981) p. 1. Quoted by T. Komarnicki in *Rebirth of the Polish Republic*. London, 1957,p.604.
- 14 Davies, *White Eagle*. p. 27.
- 15 W. Bruce Lincoln, *Red Victory a History of the Russian Civil War*. (New York: Simon & Schuster Inc., 1991.) p. 399.
- 16 Norman Davies, "The Genesis of the Polish-Soviet War, 1919-1920," *European Studies Review*. (Vol. 5, No. 1, 1975.) p. 64.
- 17 Davies, *White Eagle*. p. 27.
- 18 Lincoln. p. 399.
- 19 James McCann, "Beyond the Bug: Historiography of the Soviet-Polish War," *Soviet Studies*, (Vol. XXXVI, No. 4, October 1984.) p. 477.
- 20 Zamoyski. p. 30.

21 David M. Glantz, "The Strategic and Operational Impact of Terrain on Military Operations in Central and Eastern Europe." (Fort Leavenworth, KS: Foreign Military Studies Office, US Army Combined Arms Command, 10 December, 1991.) p. 3.

22 Zamoyski. p. 31.

23 Ibid. p. 31.

24 Glantz. p. 18-24.

25 Ardant du Picq, *Battle Studies*, in *Roots of Military Strategy Book 2*, (Harrisburg PA: Stackpole Books, 1987.) p. 65.

26 Jedrzejewicz. p. 91.

27 Jedrzejewicz. p. 46-49.

28 Ibid. p. 49.

29 Watt. p. 38.

30 Watt. p. 44-47.

31 Ibid. p. 47.

32 Jedrzejewicz. p. 64.

33 Watt. p. 45.

34 Ibid. p. 61.

35 Zamoyski. p. 16.

36 Ibid. p. 17.

37 Watt. p. 113.

38 Zamoyski. p. 18-20.

39 Watt. p. 114.

40 d' Abernon. p. 26.

41 Zdzislaw Musialik, *General Weygand and the Battle of the Vistula - 1920*. (London: Jozef Pilsudski Institute of Research Ltd. 1987.) p. 44.

42 Michael Fibich, "On the Polish-Bolshevik Front in 1919 and 1920," *The Field Artillery Journal*. (Washington D.C.: The United States Field Artillery Association, Vol. XIII, No. 4, July-August.) p. 276.

43 Fuller. p. 341. Quoted by P. Fervaque in *Le Chef de L'Armee Rouge*. Paris 1928. p. 36.

44 von Wiltich, "The Russo-Polish War 1919-1920, Noncritical and Critical Views," *Review of Military Literature*. (Fort Leavenworth KS: The Command and General Staff College, Vol, XIV, No. 52, March 1934.) p. 44.

45 John Erickson, *The Soviet High Command, a Military-Political History 1918-1941*. (Boulder, CO: Westview Press, 1984.) p. 26.

46 von Witich. p. 44.

47 Erickson. p. 33.

48 Zamoyski. p. 13.

49 Erickson. p. 33.

50 Leon Trotsky, *Kak Vooruzhalas Revolyutsiya*, Vol. 2 (part 1). p. 89. Quoted in *The Russian Revolution and the Soviet State 1917-1921*, ed Martin McCauley. (New York: Barnes and Noble, 1975.) p. 161.

51 Ibid. p. 162.

52 Ibid. p. 162.

53 Erickson. p. 32-33.

54 Zamoyski. p. 21.

55 Christopher Donnelly, *Red Banner*. (Alexandria, VA: Jane's Publishing Inc., 1988.) p. 67.

56 Zamoyski. p. 24.

57 Ibid. p. 24.

58 Donnelly. p. 73.

59 Maxime Weygand, "The Red Army in the Polish War," *The Red Army*, ed Liddell Hart. (New York: Harcourt, Brace and Co., 1956.) p. 46.

60 von Witich. pp. 48-50.

61 Fuller. p. 344.

62 von Witich, "The Russo-Polish War 1919-1920, Noncritical and Critical Views," *Review of Military Literature*. (Fort Leavenworth KS: The Command and General Staff College, Vol, XIV, No. 55, December 1934.) pp. 43-47.

63 von Witich, "The Russo-Polish War 1919-1920, Noncritical and Critical Views," *Review of Military Literature*. (Fort Leavenworth KS: The Command and General Staff College, Vol, XV, No. 58, September 1935.) pp. 40-41.

64 Ibid. p. 41.

65 Fuller. p. 346. Quoted from Froloff's *Approvisionnement de l'Armee Rouge Sur le Front Occidental*. pp. 113-14.

66 E.R. Mahony, "The Battle of Warsaw, August, 1920 An example of the Counter-Offensive," *Journal of the Royal United Service Institution*. (London, May 1938.) p. 300.

67 von Witich, Vol, XV, No. 58. p. 49.

68 Ibid. p. 51

69 Musialik. p. 33-35.

70 C.R. Kutz, *War on Wheels*. (Harrisburg, PA: The Military Service Publishing Co. 1940.) p. 175.

71 Musialik. p. 33.

72 Davies, *White Eagle*. p. 195.

73 Musialik. p. 73.

74 Mahony. p. 300.

75 von Witich, Vol. XVI, No. 62. p. 52. op cit Fuller. p. 354. "On August 10 Kamenev sent Yegorov [commander southern Front] an order to transfer Budienny and his cavalry to Tukhachevski's command, but as his message could not be deciphered, there

was a three-day delay before it was retransmitted. Then, on the 13th, when it became understandable, Yegorov started to argue, He was not interested in the Warsaw operations and was intent upon taking Lvov ... and carry the war into Rumania. The result was that Kamenev's order was set aside....

76 Davies, *White Eagle*. p. 198.

77 Musialik. p. 64-65.

78 Ibid. p. 65.

79 von Witich, Vol. XVI, No. 62. p. 54

80 Davies, *White Eagle*. p. 199.

81 von Witich, Vol. XVI, No. 62. p. 54.

82 Ibid. p. 54.

83 Fuller. p. 355.

84 von Witich, Vol. XVI, No. 62. p. 56.

85 Ibid. pp. 56-57.

86 Fuller. p. 356.

87 von Witich, Vol. XVI, No. 62. p. 58.

88 Johnston. p. 245.

89 von Witich, Vol. XVI, No. 62. p. 60.

90 Davies, White Eagle. p. 261.

91 A. A. Svechin, *Strategy*, ed Kent Lee. (Minneapolis, MN: East View Publications, 1992.) pp. 68-69.

92 Jacob Kipp, "Mass, Mobility, and the Red Army's Road to Operational Art, 1918-1936." (Fort Leavenworth, KS: Soviet Studies Office, U.S. Army Combined Arms Center.) p. 18.

93 Jacob Kipp, "Origins of Soviet Operational Art, 1918-1936," *Transformation in Russian and Soviet Military History*, Carl W. Reddel, ed. (Washington, DC: United States Air Force Academy, Office of Air Force History, 1990.) p. 100. Kipp cites the work of Lev Nikulin, *Tukhachevskii: Biograficheskii ocherk*. (Moscow: Voenizdat, 1963), pp. 119-122.

94 "History of the Development of Soviet Military Strategy and Operational Art," cited in *Problems of Strategy and Operational Art in Soviet Military Works (1917-1940)*, ed Voyennoye Izdatel 'Stvo. (Moscow: Ministerstva Oborony SSSR, 1965.) The collection of works is a translated manuscript by selected authors on development of Soviet strategy and operational art.

95 David Glantz, "Soviet Operational Art and Tactics in the 1930's." (Fort Leavenworth KS: Soviet Army Studies Office, US Army Combined Arms Center, 1990.) This article was prepared for the American Military Institute Conference, 30-31 March 1990. p. 5

96 Kipp, "Mass, Mobility, and the Red Army's Road to Operational Art, 1918-1936." p. 21.

97 N. Varfolomeyev, "Strategy in an Academic Formulation," *Selected Readings in the History of Soviet Operational Art*, ed Harold Orenstein. (Fort Leavenworth KS: Soviet Army Studies Office, US Army Combined Arms Center, 1990.) p. 8.

98 Ibid. p. 7.

99 M.V. Frunze, "The Role of Organizational Work in Preparing for and Conducting Operations," cited in *Problems of Strategy and Operational Art in Soviet Military Works (1917-1940)*, ed Voyennoye Izdatel 'Stvo. (Moscow: Ministerstva Oborony SSSR, 1965.) p. 61.

100 Kipp, "Mass, Mobility, and the Red Army's Road to Operational Art, 1918-1936." p. 19. Quoted from Varfolomeev, "Strategiia v akademicheskoi postanovke," *Voina i revoliutsiia*, No. 11, 1928. pp. 69-96.

101 Svechin. p. 315.

102 I. Mariyevsky, "Formation and Development of the Theory of Operational Art," *Selected Readings in the History of Soviet*

Operational Art, ed Harold Orenstein. (Fort Leavenworth KS: Soviet Army Studies Office, US Army Combined Arms Center, 1990.) p. 17.

BIBLIOGRAPHY

BOOKS

Albrecht-Carrie', Rene', *A Diplomatic History of Europe Since the Congress of Vienna*. New York: Harper and Row Publishers,

D'Abernon, Viscount. *The Eighteenth Decisive Battle of the World*. London: Hodder and Stoughton Limited, 1931.

Davies, Norman, *White Eagle , Red Star : The Polish-Soviet War, 1919-1920*. New York, NY: St. Martin's Press, 1972.

Erickson, John, *The Soviet High Command A Military-Political History 1918-1941*. Boulder CO: Westview Press, 1984.

Fuller, J.F.C., *A Military History of the Western World*, Vol III. New York: Funk and Wagnalls, 1956.

Hart, Liddell B.H. ed., *The Red Army*. New York: Harcourt, Brace and Co., 1956.

Karolevitz, Robert, F., *Flight of Eagles: The Story of the American Kosciuszko Squadron in the Polish-Russian War, 1919-1920*. Sioux Falls, SD: Brevet Press, 1974.

Kutz, C.R., *War on Wheels*. Harrisburg, PA: The Military Service Publishing Co. 1940.

Lincoln, W. Bruce, *Red Victory: A History of the Russian Civil War*. New York: Simon and Schuster, 1989.

McCauley, Martin, ed., *The Russian Revolution and the Soviet State 1917-1921*. New York: Barnes & Noble, 1975.

Musialik, Zdzislaw M., *General Weygand and the Battle of the Vistula, 1920*. London: Jozef Pilsudski Institute of Research, 1987.

Pilsudski, Joseph. *The Memories of a Polish Revolutionary and Soldier*. Translated and edited by D.R. Gillie. London: Faber and Faber Limited, 1931.

Reddel, Carl W. ed., *Transformation in Russian and Soviet Military History*. Washington D.C.: United States Air Force Academy Office of Air Force History, 1990.

Svechin, A. A. *Strategy*, ed Kent Lee. Minneapolis, MN: East View Publications, 1992.

Tukhachevski, Michael, "Annex #1, The March Beyond the Vistula," *Year 1920*. London, New York: Pilsudski Institute of America, 1972. SAMS Reprint.

Watt, Richard M., *Bitter Glory*. New York: Simon and Schuster, 1979.

Zamoyski, Adam, *The Battle for the Marchlands*. Boulder, CO: East European Monographs; New York: Distributed by Columbia University Press, 1981.

MANUALS

Field Manual 100-5, *Operations*. Washington DC.: HQ Department of the Army, 1993.

ARTICLES

Blank, Stephen, "Soviet Nationality Policy and Soviet Foreign Policy: The Polish Case 1917-1921." *The International History Review*, Vol. VII, No. 1, February 1985.

Bridge, C.E.D., "The Russo-Polish War of 1920 a Little-Known Campaign." *Journal of the Royal United Service Institution*. London, Vol. LXXIV, No 494, May 1929.

- Cox, Gary, "Of Aphorisms, Lessons, and Paradigms: Comparing the British and German Official Histories of the Russo-Japanese War." *The Journal of Military History*. Lexington, VA: The Virginia Military Institute & George C. Marshall Foundation, Vol. 56, No. 3, July 1992
- Davies, Norman, "The Genesis of the Polish-Soviet War," *European Studies Review*. Vol. 5, No. 1, 1975.
- Davies, Norman, "The Missing Revolutionary War." *Soviet Studies*, Vol. XXVII, No. 2, April 1975.
- Falls, Cyril, *A Hundred Years of War*. New York: Collier Books, 1962.
- Farman, Elbert E. "The Polish-Bolshevik Cavalry Campaigns of 1920." *The Cavalry Journal*. Washington DC: United States Cavalry Association. Vol. XXX, No. 124, July 1921.
- Fibich, Michael J., "On the Polish-Bolshevik Front in 1919 and 1920." *The Field Artillery Journal*. Washington DC: The United States Field Artillery Association. Vol. XII, Nos. 4 & 5, July-August and September-October 1923.
- Fiddick, Thomas, "The 'Miracle of the Vistula': Soviet Policy versus Red Army Strategy." *Journal of Modern History*. Vol. 45, No. 4, December 1973.
- Frunze, M.V., "The Role of Organizational Work in Preparing for and Conducting Operations," cited in *Problems of Strategy and Operational Art in Soviet Military Works (1917-1940)*, ed Voyennoye Izdatel 'Stvo. Moscow: Ministerstva Oborony SSSR, 1965.
- Glantz, David M., "The Strategic and Operational Impact of Terrain on Military Operations in Central and Eastern Europe." Fort Leavenworth, KS: Foreign Military Studies Office, 1991.

Glantz, David, "Soviet Operational Art and Tactics in the 1930's." Fort Leavenworth KS: Soviet Army Studies Office, US Army Combined Arms Center, 1990.

Johnson, Alexander L.P., "The War Memoirs of Archduke Joseph." *Infantry Journal*. Harrisburg, PA: Infantry Journal, Inc. Vol. XL, No. 5, September-October 1933.

Johnston, G.R., "The Battle of Warsaw, August, 1920." *The Army Quarterly*. London: William Clowes & Sons, LTD. Vol. V, No. 2 January 1923.

Kipp, Jacob, "Mass, Mobility, and the Red Army's Road to Operational Art, 1918-1936." Fort Leavenworth, KS: Soviet Studies Office, U.S. Army Combined Arms Center.

Kipp, Jacob, "Origins of Soviet Operational Art, 1918-1936," *Transformation in Russian and Soviet Military History*, Carl W. Reddel, ed. Washington, DC: United States Air Force Academy, Office of Air Force History, 1990.

Mahony, E.R., "The Battle of Warsaw, August, 1920 an Example of the Counter-Offensive." *Journal of the Royal United Service Institution*. London, May 1938.

Mariyevsky, I., "Formation and Development of the Theory of Operational Art," *Selected Readings in the History of Soviet Operational Art*, ed Harold Orenstein. Fort Leavenworth KS: Soviet Army Studies Office, US Army Combined Arms Center, 1990.

McCann, James, "Beyond the Bug: Historiography of the Soviet-Polish War of 1920." *Soviet Studies*. Vol. XXXVI, No. 4, October 1984.

Varfolomeyev, N., "Strategy in an Academic Formulation," *Selected Readings in the History of Soviet Operational Art*, ed Harold Orenstein. Fort Leavenworth KS: Soviet Army Studies Office, US Army Combined Arms Center, 1990.

von Witich, Alfred, abstracted by During, F. "Der Russisch-Polnische Krieg 1919-1920. Unkritische und Kritische Betrachtungen." *Militarwissenschaftliche Mitteilungen*, June 1933, Reprinted in *Review of Military Literature*. Fort Leavenworth KS: The Command and General Staff School Press. Vols. XIV, XV & XVI; Nos. 52, 55, 58, & 62; March and December 1934, September 1935, & September 1936.

"History of the Development of Soviet Military Strategy and Operational Art," cited in *Problems of Strategy and Operational Art in Soviet Military Works (1917-1940)*, ed Voyennoye Izdatel 'Stvo. Moscow: Ministerstva Oborony SSSR, 1965. The collection of works is a translated manuscript by selected authors on development of Soviet strategy and operational art.